



### 3.4.1 Water Pollution Inspections – Land Disturbance sites

## 3.4.1 Land Disturbance Sites

### Overview and Purpose

The purpose of an inspection at a land disturbance site is to determine compliance with permitting requirements and to document any potential or detrimental impacts upon waters of the state. By nature of the work, the most effective and telltale inspections should be conducted during wet weather events. While this is not always possible, sites with known problems should be inspected during rainfall events.

### Forms

- [Land Disturbance Checklist](#)

### Pre-Inspection Procedures

Obtain available files for the facility or responsible party to review compliance history, if any.

If a permit has been issued, review it prior to arriving at the site. Be certain to take a copy of the permit (and an extra copy for the permittee) at the time of inspection.

Review a topographic map of the area to become familiar with land features and stream locations within the general vicinity of the site.

Review available technical references for constructing and maintaining best management practices such as the department's [Protecting Water Quality - A Construction Site Water Quality Field Guide](#). Take a copy of this reference with you to leave with the permittee or site operator, as necessary.

Organize and inspect the field equipment that you will take for the inspection. Make sure a recent quality-assurance/quality-control calibration of equipment has been performed.

At a minimum your sampling kit should include: thermometer, pH pen, conductivity pen, dissolved oxygen probe, deionized rinse water bottle, protective gloves, sample transport cooler, ice, and appropriate sampling containers and labels. Review the Environmental Services Program Standard Operating Procedures [MDNR-ESP-001](#) for sample collection. Be prepared to use the Chain-of-Custody sheet [MDNR-ESP-002](#).

Be certain also to take a digital camera and GPS unit for use during the inspection. It is also a good idea to take along appropriate safety equipment including a hard hat, your steel-toed safety boots, and an orange safety vest to increase visibility.

### On-site Inspection Procedures

Use the [land disturbance checklist](#) to guide you through the site inspection. Upon arrival at the site seek out the facility representative or site operator. Explain the purpose of the inspection or investigation. In most cases it is preferable to conduct a complete site inspection each time you visit a site, whether responding as a result of a complaint or conducting a routine inspection. Land



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disturbance sites change almost on a daily basis and you must observe the changes to understand the dynamics at work on the site.

If the site is permitted, make certain a copy of the permit is available to the operator at the site. If not, provide the operator with the extra copy you made during your inspection preparations. Ask the operator to present the written stormwater pollution prevention plan for review. The plan must be available at the site. Have the operator go over the plan with you in detail so that you understand the site layout and the best management practices that are being employed. This gives you an opportunity to determine whether or not the operator is familiar with the plan, understands the requirements, and is in fact following the plan. At a minimum, the plan should include a map or drawing that depicts site topography, identifies major land and surface water features and shows the location and construction detail for the best management practices that are to be installed. Often these plans will be prepared by an engineer, although not required. The failure to have a stormwater pollution prevention plan should be viewed as a major deficiency of permit and regulatory requirements.

Prior to completing the paperwork review ask the operator to provide any applicable federal 404 permit from the U.S. Army Corps of Engineers or 401 water certification letter from the department. Also ask to review any written rainfall and site inspection logs kept by the operator.

If the site is not permitted, it is preferable to conduct the physical inspection at the facility followed by a review of all regulatory requirements during the exit interview. You may also explain requirements as you conduct the inspection, if traffic movement and safety conditions at the site allow.

Walk or drive the entire site, as appropriate, observing both areas that have been disturbed and those that soon will be disturbed as part of the construction activities. If a permit has been issued for the site, verify that the land disturbance locations match the site information described on the permit.

Some observations to include are:

- Clearing and grubbing activities and their relation to water bodies.
- Observe the terrain and locate areas where storm water would likely leave the property. Confirm the outfall location as described on the permit. If other outfalls are evident, note their location(s) and general observations.
- Have best management practices been properly constructed? Are they constructed according to the requirements of the Stormwater Pollution Prevention Plan? Are they being repaired and maintained? Are there any obvious bypasses of sediment barriers or controls?



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- If required, have sediment/siltation ponds been constructed? Are they adequately sized?
- Is there sediment running off of the property, into streets and storm water drains?
- Are any nearby water bodies or streams discolored or show signs of sediment deposition?
- Are neighboring properties being impacted by poor or non-existent best management practices?
- Are there areas of the site and practices (or lack thereof) that are likely to cause a violation of the permit?

Be sure to take pictures as you conduct your inspection, as photos are worth a thousand words and will support your observations. Complete the [land disturbance checklist](#), along with the notes in your field notebook, as you conduct the site tour. A hand-drawn sketch of the site can also be useful, especially later as you write your report. Remember that good documentation is an important part of the inspection process. Be aware that your field notes are subject to Sunshine Law requests and should reflect only professional observations and comments.

#### **Inspection Sampling**

Sampling at land disturbance site inspections must occur during or soon after a rainfall event. Therefore, the best time to conduct an inspection at a site with suspected or known problems is during a rainfall. Wet weather observations and sampling will also be beneficial in understanding the site run-off characteristics and hydraulics, perhaps assisting with potential solutions.

Sampling protocol is similar to other water sampling, in that you should obtain a sample upstream of the outfall and a sample below the outfall. It is also best if you can obtain a sample of water both upstream and downstream of the property. This allows for the possibility of determining possible pollutant amounts entering the permitted area from neighboring construction developments. Complex developments may require that you study the area and prepare a written sampling plan. If you require assistance with sampling or with developing a sampling plan you may contact the water quality monitoring section of the Environmental Services Program.

#### **Post-inspection Procedures**

Meet with the facility representative(s) and review both the satisfactory and unsatisfactory features that you saw during the site tour. Explain the required actions, and where appropriate you can provide recommendations to correct simple deficiencies. Be aware that it is the responsibility of the site owner or permittee to design features that will resolve difficult or complex problems.

The exit interview is the appropriate time to provide useful reference material or paperwork that may assist with compliance. Also remember to



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mention the department's web site, when appropriate, as a place to obtain additional useful information.

#### **Completing the Written Report**

Due to the nature of construction, the conditions at a land disturbance sites change rapidly. Equally as important is to realize that the lack of proper best management practices can cause damage to the environment at the next rain event. This requires that our inspection activities progress at a more rapid pace. Written reports for land disturbance sites must be completed and transmitted to the permittee within 10 business days of the date of the investigation or inspection. Any enforcement response should follow the guidance of the Inspection and Enforcement Manual.

#### **Follow-up**

If there are significant deficiencies at a land disturbance site, a follow-up inspection must be conducted within 30 days of the original site inspection. This is especially true if a Notice of Violation has been issued. Repeat the procedures that were prescribed for conducting the initial inspection, being especially careful to document deficiencies that have been corrected, remaining deficiencies and any new problems that may be observed. Again, prepare the written report and transmit to the permittee within 10 business days. If an enforcement referral is warranted follow the procedures of the Inspection and Enforcement Manual.